



# Flash Memory Hard Disc

Written By: Brian Nadel



## TOOLS:

- [Dremel \(1\)](#)
- [Drill \(1\)](#)
- [Pliers \(1\)](#)
- [Screwdriver \(1\)](#)  
*for prying*
- [Torx screwdriver \(1\)](#)  
*My drive's screws needed a T9.*
- [X-Acto knife \(1\)](#)



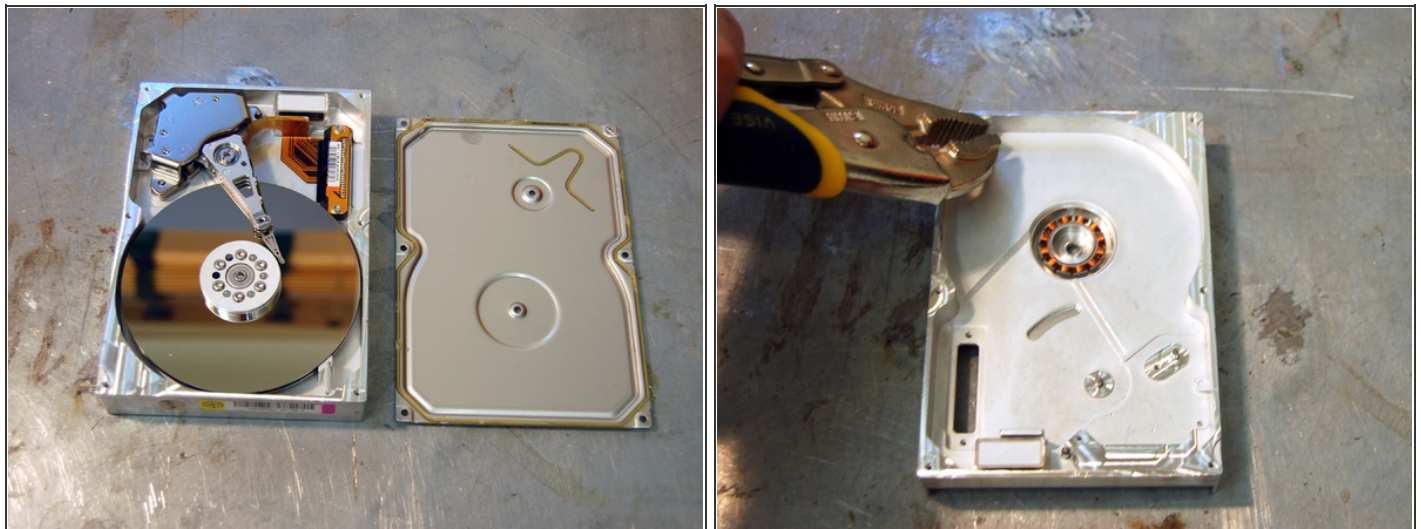
## PARTS:

- [Hard disk drive \(1\)](#)  
*does not need to work*
- [USB hub \(1\)](#)
- [USB flash drives \(3-4\)](#)  
*as many as the USB hub will take; I used 3.*
- [USB cables \(3-4\)](#)  
*Get 2-3 short ones, to let the memory sticks pack close together, and another one of any length for the external cable.*
- [Tape \(1\)](#)

## SUMMARY

I love mixing technologies to create an amalgam that looks like one thing but is actually something different. A case in point is the old hard drive that I stuffed full of flash memory. It looks like an internal drive, but it's actually a solid-state memory peripheral that plugs in via USB. This makes it an instant conversation starter for anyone who ventures into my office.

## Step 1 — Gut the hard drive.



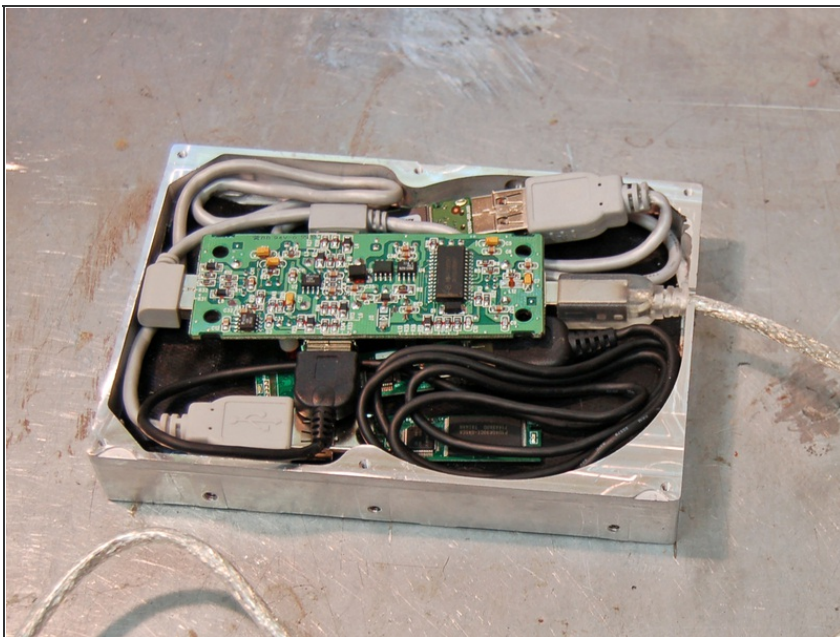
- The original drive stored 10GB, and by filling it with three 4GB memory sticks, I actually increased its capacity.
- To start the conversion, I attacked the 3½", 2-platter hard disk drive. Using a T9 Torx screwdriver, I unscrewed about a dozen screws from the case. Then I tore out the guts and cleared out space to make room for the flash drives and their cables.
- You can use a large screwdriver to pry loose the magnets. Any molded nubs or mounting studs inside you can break off with pliers and grind flat with a Dremel and an abrasive wheel.

## Step 2 — Mount the USB hub board.



- With the drive's case empty, I lined it all around with insulating tape, to prevent shorts. Next, I pried the USB hub's case apart and found a way to fit its board inside the drive case. I then drilled a hole in one end of the case, at the edge next to the lid, making it just big enough to tuck the external USB cable down into.

## Step 3 — Stuff it all in.



- Finally, it was time for the main event. I removed the flash drives from their cases, used USB cables to connect them to the hub, and packed everything into the hard drive case. It was a tight fit, but there was enough room.
- I then threaded the external cable out through its hole, screwed the hard drive's lid back down, and plugged the cable into a computer to make sure that my handiwork actually worked.

## Step 4 — Configure 3 drives as 1.



- All 3 drives responded, so there was one more thing to do. Rather than having to deal with 3 separate drive letters, I navigated Windows to combine them into a single letter. To accomplish this, start at the Disk Management page, and convert each drive into a “Dynamic Disk.” This isn’t hard, but it’s tedious and confusing.
- Now the 3 drives act like a single disk that gives me a place to stash my most precious digital possessions. I took an old disk drive, and in a flash I converted it into a solid-state “drive” that holds more data and runs faster than the original. You can teach an old drive new tricks!

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